



(11) **EP 0 832 610 A3**

(12) **EUROPEAN PATENT APPLICATION**

(88) Date of publication A3:  
**16.06.1999 Bulletin 1999/24**

(51) Int Cl.<sup>6</sup>: **A61B 17/34, A61B 19/00,  
A61B 10/00**

(43) Date of publication A2:  
**01.04.1998 Bulletin 1998/14**

(21) Application number: **97307576.5**

(22) Date of filing: **26.09.1997**

(84) Designated Contracting States:  
**AT BE CH DE DK ES FI FR GB GR IE IT LI LU MC  
NL PT SE**  
Designated Extension States:  
**AL LT LV RO SI**

• **Wood, Christopher H.**  
**University Heights (US)**  
• **Dayton, Patrick A.**  
**(US)**

(30) Priority: **30.09.1996 US 27402 P**

(74) Representative: **Waters, Jeffrey**  
**The General Electric Company, p.l.c.**  
**GEC Patent Department**  
**Waterhouse Lane**  
**Chelmsford, Essex CM1 2QX (GB)**

(71) Applicant: **PICKER INTERNATIONAL, INC.**  
**Cleveland, Ohio 44143 (US)**

(72) Inventors:  
• **Barnett, Gene H.**  
**Shaker Heights, Ohio (US)**

(54) **Trackable guide for surgical tool**

(57) A surgical guide for use with an image guided surgery includes first and second surfaces (111, 113). At least three signaling devices such as infrared emitters (4a-4d) are disposed on the first surface (111), and a cylindrical mounting boss (104) is disposed on the sec-

ond surface (113). A guide aperture (106) is perpendicular to the first and second surfaces and extends between them. The guide aperture is configured to support a surgical tool such as a biopsy needle. A sleeve may be placed in the aperture to support additional tools.

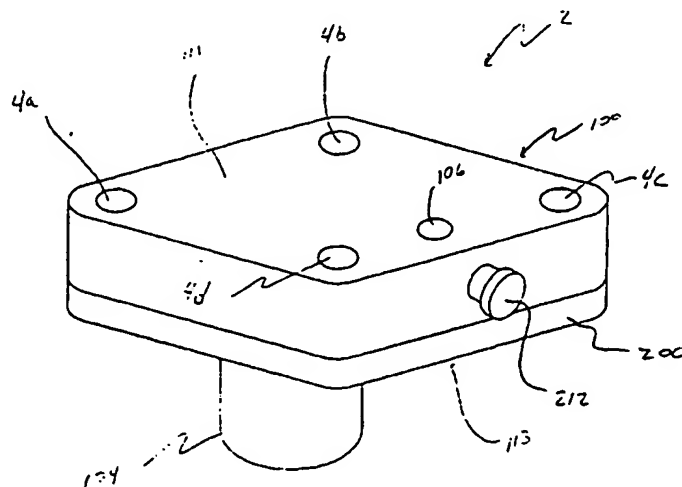


FIGURE 1

**EP 0 832 610 A3**



European Patent  
Office

# PARTIAL EUROPEAN SEARCH REPORT

Application Number

which under Rule 45 of the European Patent Convention shall be considered, for the purposes of subsequent proceedings, as the European search report

EP 97 30 7576

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (InCLs)
X	US 5 056 523 A (HOTCHKISS JR JOHN E ET AL) 15 October 1991  * column 6, line 17 - line 32 * * column 5, line 58 - line 66; figures 1, 2 *	1-3, 7, 8, 10-15, 20-22	A61B17/34 A61B19/00 A61B10/00
P, X	WO 96 33667 A (PHILIPS ELECTRONICS NV ; PHILIPS NORDEN AB (SE)) 31 October 1996  * page 3, line 13 - line 24; figures 1, 2 *	1, 7, 8, 10-14, 18-23	
A	US 5 499 989 A (LABASH STEPHEN S) 19 March 1996 * column 4, line 33 - line 44; figure 1 *	1, 12, 22	
A	US 5 394 875 A (LEWIS JUDITH T ET AL) 7 March 1995 * column 6, line 62 - line 66; figure 3 *	9	
A, D	US 5 517 990 A (KALFAS IAIN H ET AL) 21 May 1996 * abstract; figure 1A *		
			TECHNICAL FIELDS SEARCHED (InCLs)
			A61B
INCOMPLETE SEARCH			
<p>The Search Division considers that the present application, or one or more of its claims, does/do not comply with the EPC to such an extent that a meaningful search into the state of the art cannot be carried out, or can only be carried out partially, for these claims.</p> <p>Claims searched completely : 1-21</p> <p>Claims searched incompletely : 22-24</p> <p>Reason for the limitation of the search: Article 52 (4) EPC - Method for treatment of the human or animal body by surgery</p>			
Place of search		Date of completion of the search	Examiner
THE HAGUE		19 April 1999	Mayer, E
CATEGORY OF CITED DOCUMENTS			
<p>X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document</p> <p>T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons &amp; : member of the same patent family, corresponding document</p>			

EPO FORM 1603 03/92 (Pct/C07)

**ANNEX TO THE EUROPEAN SEARCH REPORT  
ON EUROPEAN PATENT APPLICATION NO.**

EP 97 30 7576

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report.  
The members are as contained in the European Patent Office EDP file on  
The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

19-04-1999

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
US 5056523	A	15-10-1991	NONE	
WO 9633667	A	31-10-1996	EP 0772423 A	14-05-1997
			JP 10502566 T	10-03-1998
			US 5682892 A	04-11-1997
US 5499989	A	19-03-1996	CA 2156107 A	23-06-1996
US 5394875	A	07-03-1995	CA 2118532 A	22-04-1995
			EP 0650075 A	26-04-1995
			JP 7255723 A	09-10-1995
US 5517990	A	21-05-1996	US 5309913 A	10-05-1994
			EP 0676178 A	11-10-1995
			JP 8052115 A	27-02-1996
			US 5776064 A	07-07-1998
			US 5732703 A	31-03-1998
			DE 69318944 D	09-07-1998
			DE 69318944 T	01-10-1998
			EP 0600610 A	08-06-1994
			JP 7148180 A	13-06-1995

EPO FORM P459

For more details about this annex : see Official Journal of the European Patent Office, No. 12/82